Differentiation of Extrahepatic And Intrahepatic Obstructive Jaundice

THE DIFFERENTIATION between extrahepatic and intrahepatic obstructive jaundice is readily made in 85 to 95 percent of cases. In the remaining 5 to 15 percent accurate diagnosis cannot be made on the usual criteria, and careful evaluation, including history, physical findings, biochemical and radiologic procedures, does not lead to a definitive diagnosis. It is in this group that oral and intravenous cholecystography rarely helps due to inability to adequately visualize the gall bladder and the common duct under these circumstances.

Fourteen years ago an international symposium entitled "Hepatitis Frontiers" (October 1956) was held at Henry Ford Hospital in Detroit. Dr. Henry Bockus put this question to the panel: "You are caring for a jaundiced patient. At the end of three weeks all tests remain inconclusive but leaning toward obstruction. What do you do next?" Need I say that six internationally recognized figures in liver disease who were present gave six different nondefinitive answers? Since complications of surgical operation and the attendant anesthesia are both frequent and severe in the presence of hepatocellular disease, it is extremely important that abdominal exploration not be undertaken in these situations. On the other hand, undue delay in the presence of extrahepatic obstructive jaundice may lead to irreversible secondary liver damage. The UCLA Interdepartmental Conference appearing in this issue is, therefore, particularly appropriate and timely.

I would emphasize that an adequate and thorough history and physical examination continue to be the cornerstone for accurate diagnosis in the vast majority of cases. Biochemical liver function tests taken in relation to each other can be extremely helpful. Unfortunately no single biochemical function test will accurately differentiate in all situations. As with cholangiography, the biochemical tests are least helpful in those situations where help is most urgently needed. The percent conjugation of bilirubin, level of alkaline phosphatase, and cholesterol, level of serum enzymes and ratios of these enzymes, etc., may be misleading. Where evidence is inconclusive the clinician is faced with the following possibilities for further evaluation: (1) peritoneoscopy; (2) liver biopsy (transcutaneous); (3) cholangiography (oral, intravenous, and transcutaneous). More recently "selective" and so-called "super-selective" angiography, hepatic and pancreatic scanning, and transjugal, transhepatic cholangiography have all become available. The first two are undoubtedly more widely used at present than is the latter.

Although peritoneoscopy avoids the dangers of a general anesthetic it requires a person experienced and expert in interpretation. Where such a person is available this procedure may often be very helpful. Both percutaneous biopsy and transthoracic cholangiography may be helpful, but in the presence of extrahepatic obstruction they carry a significant element of risk. This risk must be equated with the risk of exploration and general anesthesia in each case. Inflexible guidelines cannot be established. Of the three procedures discussed in the previously mentioned UCLA Interdepartmental Conference, selective angiography has been by far the most commonly used. It has been proved to be helpful in a significant number of cases. Hepatic and pancreatic screening on the other hand are still in the developmental stage and interpretations of liver and pancreatic patterns are difficult and may be misleading. Perhaps the most exciting and promising is the method of transjugal, transhepatic cholangiography discussed by Dr. Martin Pops in the UCLA Conference. It is apparent, however, that secondary infections and

significant Gram-negative bacteremias can occur following this procedure. Certainly more extensive experience will be needed before the safety of this procedure can be accurately determined. Finally, the increasing awareness of the role of Australian antigen makes this test of possible potential help in differentiating between extrahepatic obstruction and the intrahepatic obstructive type of viral hepatitis. As biochemical parenchymal cell liver tests become more precise, it is to be expected that precision of differentiation will increase. However, in view of varying degrees of parenchymal cell damage at various stages of extrahepatic obstruction, it appears unrealistic to expect that any single biochemical test will, in all cases, accurately differentiate for the clinician. Accurate diagnosis continues to rest on a thorough history accompanied by careful evaluation of physical findings and biochemical testing. Wise selection by the physician of the specialized techniques mentioned in this issue will help to establish the definitive diagnosis in virtually all cases and avoid needless celiotomy.

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World Medicine and the Coming Millennium

IN ANOTHER 30 years humanity will have reached A.D. 2000 and just one more generation of humans will have made whatever is to be its contribution. But this is not to be an ordinary 30 years. The next three decades will be as crucial for the ultimate health, well-being and survival of the human species as any, if not all, that have gone before. Standing upon what appears at once to be the threshold of unprecedented opportunity and the brink of utter disaster, we find ourselves curiously uninformed and unprepared, and in fact only just beginning to be a little bit concerned.

The major ingredients of this impending crisis are well known. The numbers of humans are being increased with quite reckless abandon. The new capabilities of science, technology and industry are not only to release humans from labor and ignorance and to extend life, but also to consume resources and to pollute and distort the natural environment with very little regard for the consequences. The fact is that there has been too little attention paid to the natural characteristics of humans or to the harsh reality that what have always been considered endless land, sea, air and other resources are both finite in amount and fragile in quality.

It seems reasonable to predict that in the 1970s there will be much talk of ecology but that the talk will considerably outdistance significant action, simply because there is too little knowledge of what to do and too little experience with how to do it. In the 1980s the need to industrialize backward nations to support their growing population will surely be overpowering and will severely strain world resources of all kinds. And by the 1990s this industrialization and rising expectations will likely bring about a demand the world over for access to health and well-being similar to that which is now being pressed in this nation. A great danger is that the social, economic and political responses will, as now, be too hastily considered measures to meet a succession of crises and that by the millennium, A.D. 2000, the cumulative ecological crisis may have reached proportions such as seriously to threaten not only health but even survival for humanity on this planet.

We enter these crucial times with too many of our human institutions ill-adapted, confused or hopelessly bogged down by rules and traditions designed for other times and needs. Our leaders, liberal and conservative alike, are more concerned with imposing their conceptions of what they think ought to be, than they are with the real what is. The social sciences, those disciplines which should be primarily concerned with the realities of human nature and human behavior, have instead been largely preoccupied with attempts to design systems based on some theoretical concept of how things ought to be, rather than on how they are. By and large the professions have been backing away from their special responsibilities to an increasingly technologic and interdependent world society. In a kind of desperation this nation now seems actually to have turned to the consumer, crowned him king, and begun to wait patiently in the full expectation that somehow his native wis-